1/23/12

044(5)

5

TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 264-9628
Fax (978) 264-9630

Engineering Department

INTERDEPARTMENTAL COMMUNICATION

To: **Planning Department** ***Date:*** January 20, 2012

From: **Engineering Department**

Subject: **Site Plan Special Permit 7/6/2011 – 433 – 40 Sudbury Road, Acton MA**

We have reviewed the above-mentioned revised Site Plan Special Permit application for 40 Sudbury Road, dated July 5th, 2011 revision dates of November 16th, 2011 and January 4th, 2012. We also met with the engineer on January 9th, 2012. We have accepted the response to a number of comments in our previous memo dated December 15th, 2011 and for the sake of brevity omitted the comments that were previously accepted or that have been deferred to other departments. The following comments have been either satisfied by the current plan or remain outstanding:

3. **Our comment (8/30/11): The plans do not show any proposed utilities (gas, electricity, etc).**

   Engineer's response (11/17/11): Electric and other cable utilities will extend through the access and utility easement connecting the site to Sudbury Road unless the other service routes can be negotiated with an abutting property owner.

   Our response (12/15/11): The final as-built plans should show the location of any utilities for the site. The engineer during our meeting suggested the possibility of using propane tanks in lieu of a gas line.

   Our comment: During our meeting, the engineer stated that propane tanks were no longer an option. The current plans show a proposed location for the utilities.

6. **Our comment (8/30/11): The engineer needs to show how they intend to provide potable water for the proposed facility. Our maps indicate that the water main ends on Sudbury Road at the existing hydrant opposite Westside Drive. Any work within the Sudbury Road will require a Permit To Construct Within a Public Way and will need to be coordinated with the developer for the Alexan Concord Housing project.**

   Engineer's response (11/17/11): At present a private well is proposed, as shown on the plan. Alternative routes for a connection to municipal distribution systems are also being considered, but any design or negotiation with abutting landowners will be delayed until site plan approval has been achieved.

   Our response (12/15/11): We will defer this issue to the Fire Chief and Acton Water District. The applicant could coordinate their efforts with the Alexan Concord Housing Project.

Our comment: During our meeting, the engineer stated that a private well is no longer proposed. The current plans show a possible connection to Sudbury Road. The engineer will need to coordinate his efforts with the Fire Chief, Acton Water District and the Alexan Concord Housing Project.

10. **Our comment (8/30/11): The plans do no reference any vertical datum. The plans should be referenced to the 1929 NGVD datum with the location and elevation of the starting bench mark shown and 2 temporary benchmarks on-site that are set on fixed objects that will not be disturbed or destroyed during construction.**

    Engineer's response (11/17/11): A note stating that plan datum is NGVD 1929 will be added to the plan, along with a note stating that two benchmarks will be established after clearing and initial grading have been performed. It appears that construction activities on the adjacent property have compromised the two temporary benchmarks know shown on the plans. With global positioning instruments there is no need to utilize a starting bench mark.

    Our response (12/15/11): The Site Plan Special Permit Rules and Regulations require all elevations to refer to 1929 NGVD datum and require at least two bench marks. The engineer has shown two bench marks that may or may not still exist. The engineer during our meeting stated that if those two bench marks have been destroyed, they will establish two new benchmarks.

    Our comment: The engineer has added that two bench marks will be established after clearing and initial grading have been performed. We still maintain that benchmarks should be established before construction activities have started as they are required for site plan approval as per the Site Plan Special Permit Rules and Regulations.

12. **Our comment (8/30/11): There is very little detail for the existing and proposed grades on the site. The building is built into a steep slope and appears to be at a finish floor elevation of 211'-6" and 201'-7" and the existing elevations are as low as 198 in the area of the building. There is no detail on what proposed grading or retaining walls are used. Any proposed retaining walls or grading should be reviewed by a geotechnical and a structural engineer. The abutting property in the Town of Concord had a severe washout on the steep slope and precautions need to be taken to prevent this from happening at this location during construction and after the work is complete and the buildings are occupied.**

    Engineer's response (11/17/11): Existing and proposed contours are presented with a one foot contour interval and spot grades to the nearest 0.1 feet are shown on the corners of the proposed parking lot. The buildings are to serve as retaining walls, and the 3-foot high retaining walls adjacent to the building are detailed on the plans. Building construction will be subject to the normal reviews required for a building permit.

    Our response (12/15/11): The finished floor elevations of the buildings are 211.5' and the grades in the area of the buildings are as low as 198'. The engineer should show top and bottom of wall spot grades along the retaining and foundation walls. Due to the severity of the slope and the potential for major erosion issues, we recommend that any proposed retaining walls, foundation walls or grading along this slope should be reviewed by a geotechnical and a structural engineer.

    During a meeting on December 13th, the engineer indicated that a door is being provided at the rear of the building to access the absorbent triangle area. The proposed building floor slabs are labeled at elevation 211.5' and the existing contours on the slope at this

location are as low as elevation 198'. The absorbent triangle areas should have spot grades and/or proposed contours to indicate the intended design.

Our comment: During our meeting with the engineer, he stated that doors are no longer being provided at the rear of the building to access the absorbent triangle area. The absorbent triangle area will be an area backfilled with stone that will match the existing slope as shown on the plans. The engineer has added spot grades in the area on the current plans.

14. **Our comment (8/30/11): No soil borings were provided in the application. The site is in Groundwater Protection Zone 3 and without the soil borings there is no depth to groundwater referenced anywhere in the drainage report. The engineer needs to provide documentation to support that the bottom of the proposed recharge facilities shall not be less than 2 feet above the maximum groundwater elevation.**

Engineer's response (11/17/11): Sheet 5 presents the record of four soil evaluations witnessed by the Board of Health, which show that the estimated high groundwater elevation is below 199.5 feet. The bottoms of the recharge systems are above elevation 206, so the 2 foot minimum offset is exceeded.

Our response (12/15/11): We accept the engineer's response. The engineer should clearly label the estimated high groundwater elevations on the details for the drainage facilities to demonstrate that their compliance with this requirement.

Portions of the site are actually located in zones 2 and 3. The engineer should show the various groundwater zones on the plans and demonstrate compliance with the regulations required for both zones.

Our comment: The engineer has provided the high groundwater elevations on sheet 5 of the current plans. The elevations should also be shown on the detail for the recharge areas to clearly demonstrate compliance.

15. **Our comment (8/30/11): More detail is needed for the existing and proposed topography of the site. The only existing or proposed grades provided are in the vicinity of the building.**

Engineer's response (11/17/11): Existing and proposed topography within 100 feet of site alterations are shown. There is no need to show topographic information in areas of the site removed from the area of construction.

Our response (12/15/11): During our meeting on December 13th, the engineer has indicated that he will add additional proposed grading and spot grades, as deemed necessary, around the parking area to clear show the intended grading for these areas.

Our comment: The engineer has added additional spot grades in the areas requested.

16. **Our comment (8/30/11): The existing runoff rates and volumes were not calculated. The drainage calculations only consider the runoff from the impervious areas however portions of the site that are pervious contribute to runoff offsite and those runoff rates and volumes were not included in the drainage calculations. Without knowing the existing rates and volumes it could not be verified that the proposed rates and volumes do not exceed the existing.**

Engineer's response (11/17/11): Runoff from site areas that will remain as being classified as pervious will not be increased, will not impact the design of the stormwater management system or the validity of the calculations, or provide useful information.

The Bylaw [10.4.3.1] limits the increase in stormwater runoff to a 10 percent increase based on a 10-year storm event. The area to be altered is less than 3 percent of the site, and if made entirely impervious and allowed to directly discharge to the Assabet River, the increase in the rate of runoff could not exceed the 10 percent limitation. The stormwater management system has been designed and demonstrated to store and recharge stormwater runoff resulting from a 100-year [0.01 probability of return] 24-hour storm event. The drainage calculations clearly show that runoff from the building and parking lot are retained.

Our response (12/15/11): Section 10.4.3.1 makes no reference to a 10% increase. The bylaw states: "The peak rate of storm water runoff from the development site shall not exceed the rate existing prior to the new construction based on a 10-year design storm." [10.4.3.1].

Based on our meeting on December 13th, the engineer is proposing to contain and infiltrate all the runoff from the developed site. He has indicated that his proposed drainage system is sized to fully contain the 100-year design storm. He stated that he will clarify the proposing design to show how he intends to prevent the runoff from discharging off-site.

Our comment: The engineer has updated the plans to show how runoff is prevented from discharging off-site.

17. **Our comment (8/30/11): Portions of the existing parking lot drain on to the site and were not included in the calculations. The applicant shows a "high point" at the property line to prevent water draining from offsite however there is no detail on this high point. There are no drainage calculations for the portion of the existing lot that drains on to the site.**

Engineer's response (11/17/11): We believe that there is no detail required other than the note indicating that a high point is required, and the sufficiency of such notes has been demonstrated by many other site plans. Offsite runoff from adjacent properties will not be tributary to the stormwater management system designed to serve the site, and is not relevant to the design or functioning of the proposed system. Runoff from adjacent properties does flow onto the site over 700 feet from the stormwater management system.

Our response (12/15/11): Portions of the existing parking lot drain towards the site and the engineer should show how the parking lot will be graded in order to keep water from entering the proposed stormwater management system and provide calculations to show that the existing drainage system in the existing parking lot can handle runoff from a 100-year storm. If that existing drainage system can't handle the 100-year storm and water bypasses the highpoint, water will enter the proposed system and are not accounted for in the engineer's calculation.

Based on our meeting, the engineer has agreed to provide this detail.

Our comment: The engineer should show how the high point is graded.

19. **Our comment (8/30/11): The applicant does not propose curbing for the parking area. The intent of the design is to direct runoff to the inlet structure and recharge**

area; however, without curbing the water appears to shed offsite. The applicant should show the proposed watershed areas in the drainage report.

Engineer's response (11/17/11): A concrete curb is shown extending from the building to the curb inlet to insure runoff is collected by the inlet box. The easterly edge of the parking lot is shown to be graded at a slope of 0.9 percent to the inlet box. Runoff from the parking lot will not be shed offsite.

Our response (12/15/11): Based on our meeting, the engineer does not propose curbing but agreed to show an earth berm along the parking that will direct water to the inlet box. We suggest a bituminous concrete berm since this portion of the site is located in groundwater protection zone 2. The berm will also aid to prevent pollutants from infiltrating into the soils in the event of a spill. The engineer has indicated that the proposed spill-gate design will block the inlet throat and hold the spill in the parking area.

Our comment: The engineer has agreed to add a bituminous concrete berm.

20. **Our comment (8/30/11): The Stormwater Operation and Maintenance notes should indicate who is responsible for inspecting and maintaining the drainage system.**

    Engineer's response (11/17/11): The owner of the property is responsible for the operation and maintenance of the stormwater management system.

    Our response (12/15/11): This information should be written into the Stormwater Operation and Maintenance Management Notes. This document should be incorporated into their legal documents to ensure all future owners are fully aware of the responsibilities fort he drainage system.

    Our comment: No further comment necessary.

21. **Our comment (8/30/11): The Stormwater Operation and Maintenance and Site Plan and Details should include information about how to shut-off the drainage system (i.e. inlet structure, recharge areas, etc...) in the event of any potential spill. In the event of a spill the engineer needs to show they intend to contain the material on the impervious surface without curbing to avoid contaminating the site. There should be notes on the plans clearly establishing the process and procedures that need to be followed by the future owners/tenants.**

    Engineer's response (11/17/11): The inlet box has been designed with the capacity to store 90 gallons of petroleum products or other liquids that will float on water. A note has been added to the plans describing how the inlet structure can be closed to inhibit the entrance of liquids.

    Our response (12/15/11): The engineer is proposing to use a plank to seal the inlet throat and contain the pollutants on the pavement. The note should also state how they intend to ensure the plank will remain in-place and provide a water tight seal. A proposed berm along the parking should also be required to prevent the spill from infiltrating into the adjacent soil. The engineer should also indicate how they intend to ensure the spill will be prevented from being detained on the pervious pavement near the inlet structure.

    The notes for the winter maintenance should prohibit the use of sand on the parking area to prevent clogging the pervious surface.

Our comment: The engineer has removed all pervious pavement and agreed to add a berm along the parking area.

22. **Our comment (8/30/11): The Stormwater Operation and Maintenance notes should also include information about the monitoring well for the underground infiltration system. The notes should describe, in layman's terms, the inspection process and how to determine when there is there is a problem.**

    Engineer's response (11/17/11): Sheet 4 contains a detailed description of the stormwater management system and its operation and maintenance, including, in the final paragraph, a description of the monitoring well and how to determine if the recharge system is under duress. We believe that the stormwater management system Operation and Maintenance procedures are written to be understood by persons that would be suitable for overseeing the system.

    Our response (12/15/11): The note that describes the inspections of the recharge facilities should clearly state that the grated structures are labeled on the site plan as "monitoring wells".

    The notes for the roof downspouts should clearly state they will piped and the runoff will be directed to the recharge facilities. The notes should also clearly state that if the pipes are clogged that the owners will take immediate corrective actions to rectify the problem and prevent any future erosion from occurring on the slope. The engineer indicated at the meeting on December 13th that the downspouts on the rear of the building will also be connected to each other by pipes and they will not be discharged into the absorbent triangles or down the steep slope. The roof downspout piping systems should be clearly labeled on the site plans.

    Our comment: The engineer has added the requested language to the current plans.

23. **Our comment (8/30/11): The engineer should ensure the recharging of runoff at the retaining walls on the steep slope will not undermine the existing soils underneath the wall footings and cause the walls to prematurely fail.**

    Engineer's response (11/17/11): Due regard has been given in the design of the site improvements to insure that erosion and subsidence will not occur.

    Our response (12/15/11): Due to the severity of the slope and the potential for major erosion issues, we recommend that the proposed retaining walls, foundation walls and impacts from drainage recharge facilities directly adjacent to those amenities be reviewed by a geotechnical and a structural engineer.

    Our comment: We still believe the steep slope is an issue but will defer the analysis of the walls to the building permit phase.

24. **Our comment (8/30/11): The Zoning Bylaw requires that all runoff from the impervious area within Groundwater Protection District Zone 3 shall be funneled into a gas-trap catch basin.**

    Engineer's response (11/17/11): Runoff from roofs is typically not routed through a gas trap catch basin prior to disposal and this has not been the practice in Acton, especially for single family homes. Combining roof runoff, essentially rainwater, with runoff from parking lots will result in decreasing the effectiveness of devices designed to remove impurities. Present stormwater guidelines recommend that roof runoff be isolated from runoff from

parking lots or other sources that could contain impurities. To our knowledge, roof runoff has never been combined with runoff from road/driveway surfaces and diverted to gas-trap catch basins prior to disposal.

Bylaw 4.3.6.3 allows the Board of Selectmen to approve alternate methods of runoff treatment and renovation if the intent of the Bylaw is met. The intent [Purpose] of the Bylaw is presented in 4.3.1 as being to protect public water supplies, and the segregation of rainfall from runoff possibly containing impurities meets this purpose. At this site, all runoff from the parking lot is directed to the inlet box that contains a four foot deep sump that provides a storage capacity of 16 cubic feet for storage of detritus [a mixture of grit and organic materials], and a baffle, allowing for the storage of over 90 gallons of liquids that will float on water. The parking lot has an area of 2800 square feet.

Our response (12/15/11): Based on our meeting on December 13th, the engineer does not propose curbing but agreed to show an earth berm along the parking that will direct water to the inlet box. There is a short section of concrete curb being proposed adjacent to the underground recharge system. The engineer stated that he will also correct the line-type for that curb so that it does not appear to propose an opening to allow direct discharge onto the recharge facility. We suggest a bituminous concrete berm along the parking spaces since this portion of the site is located in groundwater protection zone 2. The berm will also aid to prevent pollutants from infiltrating into the soils in the event of a spill. The engineer has indicated that the proposed spill-gate design will block the inlet throat and hold the spill in the parking area. The engineer should also indicate how they intend to ensure the spill will be prevented from being detained on the pervious pavement near the inlet structure.

Our comment: The engineer has agreed to add a bituminous berm along the parking, corrected the line-type for the curb and removed all pervious pavement from the design.

25. **Our comment (8/30/11): There is no curbing being proposed along the parking area and recharge areas are being shown directly next to the parking allowing for the potential of direct infiltration. Also, the runoff entering the inlet structure is only for the initial flush of runoff. Once the sand bed is full or inundated by a peak flow that it may not be able to handle, the runoff from the impervious surface is diverted to recharge area without any pretreatment such as gas trap catch basin as required by the Zoning Bylaw.**

Engineer's response (11/17/11): A concrete curb is shown on the plan and its purpose is to segregate the parking lot from the recharge area. The inlet box has a baffle and will serve as the gas trap required by the Bylaw and the Massachusetts Stormwater Regulations. The inlet box will also provide for the storage of 90 gallons of petroleum products.

Our response (12/15/11): See our response to Comment #24.

Our comment: No further comment necessary. The engineer has made the requested changes as we stated in comment #24.

26. **Our comment (8/30/11): The 1st inch of runoff is suppose to diverted to a retention pond that will allow exposure to sunlight and vegetation and lined with a soil featuring a permeability of 0.1417 in/hr or less so that it will be retained for an average of at least 3 days. The engineer needs to demonstrate there is sufficient storage capacity within the sand bed to contain the entire first inch and that it will retain the runoff for an average of at least 3 days. There is no vegetative layer being**

shown for the sand bed. The engineer has indicated a layer of pea stone on filter fabric instead of vegetation as required by the zoning bylaw. If a portion of the storage capacity is considered within the soil layers for the sand bed, we have some concerns that the runoff will not be able to infiltrate through the soil layer as quickly as the rate of runoff for a larger storm event.

Engineer's response (11/17/11): A vegetative layer has been substituted for the 3 inch layer of 3/8 inch stone shown in the detail. It is our opinion that the layer of 3/8 inch stone will allow for ease of maintenance, limit the breeding of mosquitoes, and not be subject to freezing. The submitted calculations confirm compliance with the requirements of 4.3.6.3 for the runoff from the parking lot. Runoff in excess of the first 1 inch is diverted to the recharge area as allowed by the Bylaw.

Our response (12/15/11): The engineer has added a vegetative layer in place of the layer of pea stone. The engineer should label the estimated high groundwater elevations on the detail for the sand filter to clearly demonstrate that their compliance with the minimum separation to groundwater requirement.

Our comment: The engineer hasn't added the high groundwater elevations on the detail.

27. **Our comment (8/30/11): The engineer has shown some absorbent triangle areas on the backside of the proposed buildings. There is no way for future tenants/owners to access these areas with equipment to maintain and/or replace these areas when maintenance is required.**

Engineer's response (11/17/11): Roof runoff is collected by the building's oversized 8 inch wide gutters and transported to the recharge areas at the sides of the building. Only precipitation falling directly on the areas designated as "absorbent triangles" will enter the stone and there should be no need for maintenance, especially not with "equipment". The absorbent triangles were designed to insure that the triangular areas at the junctions of the building would be completely stabilized, and to serve as redundant recharge works.

Our response (12/15/11): See our response to Comment #12.

Our comment: No further response is necessary. The engineer has satisfied our comment.

28. **Our comment (8/30/11): Maintenance and routine inspections of the drainage facilities and the steep slope will be crucial at this site to try and prevent any clogged systems from overflowing and eroding the slope that will compromise the safety of the facility and its occupants.**

Engineer's response (11/17/11): No response necessary.

Our response (12/15/11): No further comment

30. **Our comment (8/30/11): The engineer has indicated pervious pavement to be used with certain locations on the site, including parking areas and at the holding tank and the Oil, Sand and Gas separator for the interior floor drain system. The runoff from the impervious areas cannot discharge to the inlet structure without draining over the porous pavement thus it will allow direct infiltration without pretreatment through a gas trap catch basin as required by the Zoning Bylaw.**

Engineer's response (11/17/11): The area of impervious pavement has been extended to the concrete curb where it intersects the building corner to direct runoff across an impervious surface to the inlet box. As an alternative, the entire parking lot can be paved with porous pavement to achieve a runoff coefficient of less than 0.70.

Our response (12/15/11): The proposed parking area next to the building is being designed with pervious paving. The pervious pavement will allow direct infiltration of that portion of the parking area without pretreatment. The site is located within Groundwater Protection Zone 3.

Our comment: The engineer has removed all pervious pavement.

31. **Our comment (8/30/11): The cross section for the porous pavement shows it being installed with a compacted processed gravel base. This will restrict the infiltration capacity by compacting the layers and minimizing the voids in the soil. The cross section should also state the existing soils shall not be compacted in any form to maintain its natural infiltrative characteristics.**

    Engineer's response (11/17/11): The porous pavement detail is a "standard" detail utilized by most designers and is widely acceptable. We will review any detail from acceptable sources presented by the Engineering Department for use at this project. The compacted gravel base is required to support the 6 inch stone reservoir contained below the porous pavement, and the pavement itself. Compaction will not decrease the permeability of the gravel beyond that necessary. Compaction of in situ soils will decrease their permeability below acceptable limits.

    Our response (12/15/11): The engineer submitted his standard detail that is footnoted to the University of New Hampshire. If allowed within this groundwater protection district, the engineer should revise his porous pavement detail to be consistent with the UNH design. The engineer should also include any notes that were included as part of the UNH design to ensure the contractor is fully aware of the construction/installation process for this type of pavement.

    The drainage calculations for the underground storage/recharge systems size these facilities by assuming all the runoff from the impervious & pervious pavement and the roofs. Because the site is located within the Groundwater Protection District 3, we recommend that the entire parking area be impervious to ensure all the pollutants from vehicles are collected and treated in accordance with the zoning requirements. The only drainage facility that would need to be re-designed would be the sand filter (retention basin) to provide the necessary additional storage.

    Our comment: The pervious pavement has been removed. This comment no longer applies.

32. **Our comment (8/30/11): Due to the porous pavement, sanding the parking area during the winter months should be prohibited to prevent clogging the porous material. Also, the maintenance of the porous pavement may need to be revised. We've found that some sources indicate monthly inspections and vacuuming the porous surface almost to that frequency, if needed, to maintain its ability to allow runoff to pass through the voids in the material.**

    Engineer's response (11/17/11): The parking lot has a grade of less than 2 percent and will be well exposed to sunlight negating the need for sanding. The area of porous pavement is limited to the areas near the building, where thermal gain will be greatest.

The stormwater management system operation and maintenance plan requires vacuum sweeping of the parking lot surface to maintain its permeability.

Our response (12/15/11): The engineer has indicated that their pervious pavement is modeled after a design from UNH. We would like documentation from the manufacturer and/or the UNH study to document their recommended maintenance procedure to be followed to ensure its effectiveness. Typically, we have seen recommendations for vacuum sweeping or power washing about 3 to 4 times per year with annual inspections for damage, etc…

Our comment: The pervious pavement has been removed. This comment no longer applies.

35. **Our comment (8/30/11): There is an existing stone bound labeled on the Concord's side of the town line near the proposed sand bed. The stone bound should be clearly marked in the field so that it is not disturbed during construction. If any survey markers are damaged or disturbed during construction, the applicant will be required to hire a registered land surveyor to reset and certify the new survey location.**

Engineer's response (11/17/11): The stone bound is clearly visible in the field and a note on the plan states that it is to be protected. The bound is outside the area of work, outside of the property, and outside of Acton.

Our response (12/15/11): The engineer should add a note that if the bound is disturbed during construction, the applicant will be required to hire a registered land surveyor to reset and certify the new survey location.

Our comment: The bound doesn't appear to be tied to any property boundaries and therefore doesn't require it to be reset by a registered land surveyor. The engineer has added a note that the bound will be protected.

38. **Our comment (8/30/11): The engineer should include an Erosion and Sedimentation Control Plan to show locations of erosion control barriers, crushed stone construction entrances, check dams, etc… We are very concerned about erosion along this steep slope.**

Engineer's response (11/17/11): The installation of temporary construction barriers at this site is unnecessary and their installation may serve to delay construction, increase areas of disturbance, and result in the concentration of runoff, causing an increase in the potential for erosion. Both the foundation backfill methods and the absorbent triangles were incorporated into the design to limit the impact of runoff from the building during construction. Additional notes pertaining to runoff from the building during construction will be added to the plans. Additional notes have been added to the Erosion Controls description pertaining controlling runoff during construction.

Our response (12/15/11): We do not accept the engineer's response. Due to the severity of the slope and the potential for major erosion issues, we recommend that a geotechnical engineer review the erosion and sedimentation control methods as part of the overall design for any proposed retaining walls, foundation walls, grading and/or drainage on this slope to ensure the safety of the workers, the future occupants and the environment.

Our comment: We remain concerned about this issue but will defer this analysis to the building permit phase of the project.

41. **Our comment (8/30/11): The engineer should show the proposed location for their sewage disposal system and the setbacks to property lines and drainage facilities to demonstrate compliance.**

Engineer's response (11/17/11): The subsurface sewage disposal system location, design criteria, and construction details are contained on Sheet 5.

Our response (12/15/11): The Rules and Regulations require the perimeter of any existing or proposed sewage disposal systems to be shown on the site plan.

Our comment: The engineer has added the proposed location for the sewage disposal system to the site plan.

Cc: Cheryl Frazier, Building Department